A NEW SPECIES OF *PARAXANTHARUS* (COPEPODA, CALANOIDA) FROM DEEP WATERS OF THE SOUTH ATLANTIC

BY

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ABSTRACT

The hitherto unknown female sex of the genus *Paraxantharus* (Copepoda, Calanoida) is described from the South Atlantic, based on the female of a new species of the genus that is described herein. The specimen was collected from abyssal depths close to the sea bed during the German expedition ANDEEP II in 2002. *Paraxantharus victorbergeri* sp. nov. differs from its only congener in details of the setation of the oral parts; by the oblique shape of the four teeth of the gnathobase of the mandible; by the poorly sclerotized, worm-like sensory seta of the distal praecoxal endite of the syncoxa of the maxillipede; and by the lateral spine on segment 2 of the P1 exopod, which is the shortest when compared with the lateral spines of exopodal segments 1 and 3. This new species of *Paraxantharus* as described below, brings the number of species in the genus to two. The present collection of *P. victorbergeri* constitutes only the second, and also the most northern record of the genus that is so far only known from the southern hemisphere.

RÉSUMÉ

INTRODUCTION

Studies of deep-water collections from benthopelagic habitats in the South Atlantic and the Southern Ocean performed in the framework of the CeDAMar (Census of the Diversity of Abyssal Marine Life) project in the recent German ANDEEP (ANtarctic benthic DEEP sea biodiversity) and in earlier German expeditions have shown that the near-bottom calanoid fauna of the polar regions is very diverse. These studies have already led to the discovery of many new genera and species (e.g., Schulz & Markhaseva, 2000; Schulz, 2002, 2005, 2006; Markhaseva & Dahms, 2004; Markhaseva & Schulz, 2006a, b, c, 2007, 2008; Markhaseva et al., 2008). One more new species of the rare near-bottom genus Paraxantharus Schulz, 2006 was found in samples collected with the epibenthic sledge during the ANDEEP II Expedition in 2002 in the abyssal near-bottom environment (Brandt et al., 2004). This species is described herein as Paraxanthis victorbergeri sp. nov. Considering this new species, the genus Paraxantharus contains two species at present, Paraxantharus brittae Schulz, 2006 and P. victorbergeri sp. nov., both known only from waters south of 58°S. The diagnosis of genus Paraxantharus as established after the male (Schulz, 2006) is completed with characters of the female, first described in the present paper.

METHODS AND TERMINOLOGY

A single specimen of a new species of near-bottom calanoid copepod, Paraxanthus victorbergeri sp. nov. was collected during the R/V “Polarstern” expedition ANDEEP II in 2002. Sampling was done close to the sea bed at abyssal depths between 3931 and 3925 m in the South Atlantic, with a closing epibenthic sledge (Brandt & Barthel, 1995). The specimen was fixed in 96% ethanol and later stained by adding a solution of chlorazol black E dissolved in 70% ethanol/30% water. The oral parts and the swimming legs were dissected, and drawings were prepared with the specimen and its appendages mounted in glycerine and using a camera lucida.

The following abbreviations are used in the descriptions: P1-P5, swimming legs 1-5; the free segments of the antennule are designated by Arabic numerals, ancestral segments by Roman numerals; one seta and one aesthetasc on a segment of the antennule are designated as: 1s + 1ae; the syncoxa of the maxilliped is considered to have three praecoaxal endites and one coxal endite (Ferrari & Ivanenko, 2008). The type specimen is deposited in the Zoological Museum Hamburg (ZMH).